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(54) Title: METHOD FOR APPLICATION OF A THERMAL BARRIER COATING AND RESULTANT STRUCTURE  
THEREOF

(57) Abstract: Provided herein are methods and apparatuses, and resulting structures, for depositing ceramic coatings with pre-  
ferred coating density, morphology and adherence for applications such as thermal protection of internally cooled components. Such  
components are found in, but not limited thereto, the hot sections of gas turbine and diesel engines and in turbo machinery. These  
coatings require a low thermal conductivity in the through thickness of the coating, high in-plane elastic compliance, high erosion  
and foreign object damage resistance and resistance to hot corrosion. The methods and apparatuses discussed herein provide, among  
other things, how to manipulate the process conditions in EB-DVD systems to deposit high quality, highly efficient TBC top coats  
as well as how to deposit high quality TBC top coats onto positions that are in the line-of-sight, as well as non-line of sight, of the  
vapor source.

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